AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) Gas supply system (3) for a side blowing and/or bottom blowing metallurgical furnace with at least one tuyere (5), which is mounted in the side wall and/or in the bottom of the furnace, wherein gas is conveyed through a line (6) of the gas supply system to the tuyere (5) and through the tuyere to the interior of the metallurgical furnace and emerges there in the form of bubbles, wherein the gas supply system (3) has an inflow restrictor (7), which is assigned to the tuyere (5) or is positioned upstream of the tuyere (5) and is operative to actively reduce or interrupt the gas supply to the interior of the furnace at equal intervals of time, wherein the inflow restrictor (7) is movable between an open position for unimpeded gas supply and a closed position for interrupted gas supply at a frequency greater than 5 Hz.

2. (Canceled)

3. (Previously presented) Gas supply system in accordance with Claim 1, wherein the inflow restrictor (7) is installed at the mouth of the tuyere, outside the metallurgical furnace.

4. (Previously presented) Gas supply system in accordance with Claim 1, wherein the inflow restrictor (7) comprises a solenoid valve or a servovalve.

5. (Previously presented) Gas supply system in accordance with Claim 1, wherein the system (3) has bypass lines (8) that are assigned to the respective gas lines (6) in which the inflow restrictors (7) are integrated and that each bypass line (8) has a shutoff device (9).

6. (Previously presented) Gas supply system in accordance with Claim 1, wherein it has a control unit (10) for the inflow restrictors (7) for coordinating the in-phase or out-of-phase operation of at least two tuyeres (5).

7. (Previously presented) Method for operating a gas supply system for a side blowing and/or bottom blowing metallurgical furnace with at least one tuyere (5), which is mounted in the side wall and/or in the bottom of the furnace,

wherein gas is conveyed through a line (6) of the gas supply system (3) and through the tuyere (5) to the interior of the metallurgical furnace and emerges there in the form of bubbles, wherein the flow of gas into the interior of the furnace is periodically reduced or interrupted at frequencies greater than 5 Hz.